

REMARKS

Upon entry of the present amendment, no claims will have been added, canceled or amended. Accordingly, claims 1-3 and 5-9 will remain pending in the present application and are resubmitted for examination.

In the outstanding Official Action, the Examiner rejected claims 1-3 and 5-9 under 35 U.S.C. § 112, first paragraph. The Examiner asserted that the claims fail to comply with the enablement requirement and that they contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

Applicants respectfully traverse the above noted rejection and submit that it is inappropriate with respect to the claims pending herein. In particular, the subject matter recited in the instant claims is clearly and unambiguously described in the specification of the present application. Further, the specification of the present application is adequate to enable one skilled in the art to make and/or use the claimed invention.

Applicant's invention is directed to a communication control apparatus, a nonlimiting example of which is recited in presently pending claim 1. In particular, the present invention relates to a communication control apparatus which includes a detection section that detects at least one of a radio environment, comprising a radio communication field intensity and a modulation scheme for radio communication, or a network environment, comprising identification information of a network with which the communication control apparatus is associated and a communication condition of the network. A lower layer management section stores information of the detected radio environment or network environment, monitors whether or not a change has occurred in the radio environment or in the network environment and provides a monitoring result to an upper layer, above a transport layer, without the result being

conveyed through the transport layer. A control section performs communication service control in the upper layer, above the transport layer, based upon the monitoring result received from the lower layer management section without the result being conveyed through the transport layer.

The above noted combination of features, which make up an aspect of Applicants' invention, is fully and adequately described in the specification of the present application. Accordingly, Applicants respectfully request withdrawal of the outstanding rejection together with an indication of the allowability of all of the claims pending in the present application, particularly since no prior art was applied against the pending claims in the outstanding Official Action.

In setting forth the rejection, the Examiner asserted that the specification does not describe providing a monitoring result to a upper layer, above a transport layer, without the result being conveyed through the transport layer. It is respectfully submitted that the Examiner is incorrect.

In particular, Applicants respectfully direct the Examiner's attention to, inter alia, page 10, line 26 through page 11, line 28 of the disclosure of the present application. As disclosed thereat, the lower layer management section 22 utilizes a database to manage the communication environment conditions detected by the device control section 21 and the network distribution control section 20. The lower layer management section 22 reports the information recorded in the database to the connection control section 12, which is explicitly described as an upper layer section. The connection control section 12 is part of an application or is used directly by an application through the operation of the lower layer management section 22. Accordingly, device or network layer communication conditions are reported to the application layer (page 11,

lines 16-21), without being conveyed through the transport layer as explicitly illustrated in figure 2.

In other words, the lower layer management section 22 manages and registers (i.e., stores) communication (i.e. radio or network) environment conditions detected by the device control section 21 and by the network distribution control section 20 by utilizing a provided database. In the event of a change in the recorded information, the lower layer management section 22 reports the change in the information (i.e. a monitoring result) to the connection control section 12.

Further, page 11, line 16-18 explicitly describes the connection control section 12 as part of an application and one of ordinary skill in the art would understand that an application layer is an upper layer with respect to a transport layer. The Examiner's attention is also respectfully directed to page 9, lines 3-7.

Accordingly, the Examiner's assertion, in the statement of the rejection, that the specification merely describes that the gist of the present invention is that control related to a session between a media stream data transmission source and a reception destination is performed based on information relating communication conditions of a layer lower than the transport layer, is clearly incorrect.

Further, the recitation, at page 11, line 4 that the lower layer management section 22 reports various kinds of information recorded in a database to connection control section 12, which is an upper layer section provides explicit support for "provides a monitoring result to an upper layer, above a transport layer, without the result being conveyed through the transport layer". The Examiner's attention is again respectfully directed to figure 2, which shows transport control section 19, and also explicitly illustrates that the connection between lower layer

management section 22 and the connection control section 12 does not involve transmitting data through the transport control section 19.

Yet additionally, a detailed description of the operations that take place in the application layer (i.e. the upper layer) for acquiring and utilizing information from the lower layer management section 22 is set forth at, inter alia, page 16, line 6 through page 20, line 23 with and particular reference to figure 5, steps ST1200 through ST1400 thereof.

In particular, the device control section 21 constantly monitors and determines whether or not the radio environment has changed. If and when the device control section 21 detects that the radio field intensity has weakened, the value of the field intensity after the change is reported to the lower layer management section 22 which stores the reported value in the field intensity location within the management database. Not only does the device control section 21 inform the lower layer management section 22 of a change in the field intensity, but it can also inform the lower layer management section 22 of a change in the state of the radio link. The lower layer management section 22 can then store the reported change in the relevant location within the management database. In a generally similar fashion, the device control section 21 may also inform the lower layer management section 22 regarding changes in the modulation scheme or in the radio access point congestion or even in the radio base station congestion. Examples of data stored in the management database of the lower layer management section 22 are illustrated in figure 6A.

In a generally similar fashion and concurrently (i.e., in parallel) with the detection of radio environment changes by the device control section 21, the network distribution control section 20 detects changes in the network environment. For example, the network distribution control section 20 can detect changes in the network prefix and reports the changed prefix value

(i.e. network ID) to the lower layer management section 22 where these changed values are stored in the appropriate location within the management database. The network distribution control section 20 may also inform the lower layer management section 22 regarding changes in the number of retransmissions or in the size of the receive buffer.

As set forth at page 19, line 19, the lower layer management section 22 constantly monitors whether or not a newly reported value has been stored in the management database and when such a value is stored, the change is reported to the connection control section 12 of the application, which performs application control based upon the reported information from the lower layer management section 22.

Accordingly, Applicants disclosure provides, in specific detail, how the claimed invention avoids the transport layer in the transmission of information between the lower layer management section and the upper layer connection control section. Thus, the disclosure does not, contrary to the Examiner's assertion, require "some sort of undue experimentation".

Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection, together with an indication of the allowability of all the claims pending in the present application, in due course.

Although the status of the present application is after Final Rejection, entry and consideration thereof is submitted to be appropriate under 37 C.F.R. § 1.116. The present response raises no new issues requiring further consideration or search but merely rebuts the Examiner's rejection. Thus the present response clearly places the present application into condition for allowance.

SUMMARY AND CONCLUSION

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so. Applicants have discussed and traversed the Examiner's rejection of the claims in the present application as being based upon a disclosure which fails to comply with the enablement requirement of 35 USC 112, first paragraph. Applicants have pointed out where the disclosure of the present application provides explicit, adequate and sufficient support for the recitations of Applicants' claims and have referred the Examiner to several particular portions of the detailed description and the drawings of the present application, which provide full enablement for the claimed subject matter. Accordingly, Applicants have provided a clear evidentiary basis supporting the patentability of all of the claims in the present application and respectfully request an indication to such effect, in due course.

Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,
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